

## **AirCell Cellular Licensee Partners**

ALLTEL Corporation  
California RSA No. 3 Limited Partnership d/b/a Golden State Cellular  
Cellular Network Partnership, A Limited Partnership d/b/a Pioneer Cellular  
Centennial Communications Corporation  
CenturyTel Wireless, Inc.  
Comcast Cellular Communications, Inc.  
Commnet of Delaware L.L.C.  
Commnet Wireless, Inc.  
Corr Wireless Communications, L.L.C.  
ETEX Communications, L.P.  
Kentucky RSA 4 Cellular General Partnership  
Northeast Communications of Wisconsin, Inc. d/b/a Cellcom  
Pine Belt Cellular, Inc. d/b/a Pine Belt Wireless  
Rural Cellular Corporation  
Smith Bagley, Inc.  
Southern Illinois RSA Partnership d/b/a First Cellular of Southern Illinois  
South Canaan Cellular Communications Company  
Tennessee RSA No. 3 Limited Partnership d/b/a Eloqui Wireless  
Texas RSA 1 Limited Partnership d/b/a XIT Cellular  
Texas RSA 8 South Limited Partnership d/b/a Wes-Tex Cellular  
United States Cellular Corporation  
Vanguard Cellular Financial Corp.  
Western Wireless Corporation  
Yorkville Communications, Inc.



Law Offices

# HOLLAND & KNIGHT LLP

2099 Pennsylvania Avenue, N.W.  
Suite 100  
Washington, D.C. 20006-6801

202-955-3000  
FAX 202-955-5564  
www.hklaw.com

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June 14, 2001

PETER M. CONNOLLY  
202-862-5989

Internet Address:  
pconnoll@hklaw.com

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MAR 28 2002

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

VIA HAND DELIVERY

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Re: AirCell Proceeding

Dear Ms. Salas:

On behalf of United States Cellular Corporation ("USCC"), an AirCell partner, this will provide the report requested by Special Condition No. 9 of the FCC's order of June 9, 2000 affirming the rule waiver necessary to permit AirCell's continuing operation.<sup>1</sup> USCC owns and/or operates cellular facilities in over 102 RSA and 44 MSA markets through wholly and partially owned subsidiaries.

<sup>1</sup> See In the Matter of AirCell, Inc. Petition, Pursuant to Section 7 of the Act, for a Waiver of the Airborne Cellular Rule, or, In The Alternative, for a Declaratory Ruling, FCC 00-188, released June 9, 2000.

Over the past twelve months, USCC has provided over 25,000 minutes of use to "AirCell" customers from AirCell antennas on USCC's antenna towers in the following locations:

Site	Market
Bluegrove, TX	Wichita Falls, TX MSA
Martinsburg, WV	West Virginia RSA #4
Hugo, Oklahoma	Oklahoma RSA #10
Sigourney, IA	Iowa RSA #6
Algona, IA	Iowa RSA #14
Wewahitchka	Florida RSA #9
Yanceyville, NC	North Carolina RSA #1
Gilmanton, WI	Wisconsin RSA #5
Milo, ME	Maine RSA #2
Clear Lake, CA	California RSA #9
Flora, IN	Indiana RSA #4
Kenyon Mountain, OR	Oregon RSA #5
Muskogee, OK	Oklahoma RSA #6
Robstown, TX	Corpus Christi, TX MSA
Bennettsville, SC	South Carolina RSA #4
Cuero, TX	Texas RSA #20
Metamora, IL	Peoria, IL MSA
Plymouth, NC	North Carolina RSA #14
Ashland, MO	Columbia, MO MSA
Leakey, TX	Texas RSA #18
Turkey, TX	Texas RSA #4
Black Mountain, TN	Tennessee RSA #3
Lafayette, TN	Tennessee RSA #3
Ontario, OR	Oregon RSA #3
Union, WA	Washington RSA #4
Picabo, ID	Idaho RSA #5
Salmon, ID	Idaho RSA #5
Ferry Lake, GA	Georgia RSA #16
Ephrata, WA	Washington RSA #8
Ashton, ID	Idaho RSA #6
Oak Forest, VA	Virginia RSA #7
Ava, MO	Missouri RSA #15
Horse Mountain, CA	California RSA #1
Folkston, GA	Georgia RSA #11
Waterman, IL	Illinois RSA #1
Wolf Summit, WV	West Virginia RSA #3
Lakeview, OR	Oregon RSA #6

Magalie Roman Salas  
June 14, 2001  
Page 3


USCC has neither recorded any incidents of interference owing to Air Cell transmissions nor have such incidents been reported to USCC by neighboring carriers. In short, insofar as USCC has knowledge of its operations, AirCell's system has worked as it is intended to.

USCC believes that AirCell has been able to operate without interference to terrestrial cellular systems because of its use of low power mobile transmitters, its largely rural base station locations, its horizontally polarized transmissions, which provide additional "isolation" from vertically polarized terrestrial transmissions, and the "uptilt" of its base station transmitting antennas.

In any case, USCC can report what it believes to be interference free Air Cell operations from its above-listed base stations.

In the event there are questions regarding this matter, please communicate with the undersigned.

Very truly yours,

  
Peter M. Connolly

cc: Thomas Sugrue  
William Kunze  
Jay Jackson  
James Burtle  
Julius Knapp

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

FILE STAMP COPY



July 5, 2001

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> St. SW  
Washington, D.C. 20554

Re: In the Matter of AirCell, Inc., FCC 00-188

Dear Ms. Salas:

On behalf of Western Wireless Corporation, I am submitting this one-year report pursuant to Special Condition 9 of the FCC's Order in the above-captioned proceeding. 1/ As provided in Special Condition 9, this report includes a description of Western Wireless's experience with the provision of cellular service to airborne terminals during the past year.

The FCC's Wireless Telecommunications Bureau granted Western Wireless a waiver of the airborne cellular rule to provide cellular service to airborne terminals in accordance with the FCC's conditions on such operation, as outlined in the *AirCell Order* and previous decisions, on December 20, 1999. 2/ Since that time, Western Wireless has been continuously reselling network capacity to AirCell for cellular service to airborne terminals. Western Wireless has and continues to comply fully with all FCC rules and conditions governing these operations.

Currently, Western Wireless is providing network capacity to AirCell, for resale to airborne customers, through 23 cellular sites located in 10 states. Throughout its experience selling cellular service to AirCell for resale, including the

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1/ See In the Matter of AirCell, Inc., Memorandum Opinion and Order, 15 FCC Rcd 9622 (rel. June 9, 2000) at n. 160 and Appendix, Special Condition 9 ("*AirCell Order*").

2/ In the Matter of AirCell, Inc. and Western Wireless Corporation, DA 99-2950 (Comm'l Wireless Div., Wireless Tel. Bur. rel. Dec. 21, 1999).

Ms. Magalie Roman Salas

July 5, 2001

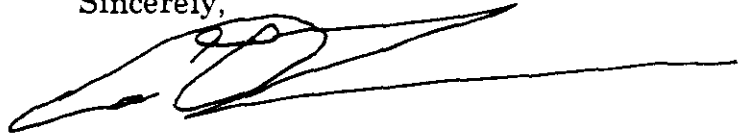
Page 2

one-year period from June 9, 2000 through June 9, 2001, Western Wireless has detected no harmful interference or performance problems. Furthermore, Western Wireless has received no interference complaints from its customers or neighboring cellular providers, nor have there been any harmful interference incidents related to these operations.

Western Wireless's customers remain satisfied with their high quality of terrestrial mobile services, while AirCell reports high levels of service quality and customer satisfaction from its airborne customers.

In sum, Western Wireless has had a positive experience working with AirCell. We will continue to monitor our airborne cellular operations with AirCell, and would be happy to provide further information to the Commission as necessary.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gene DeJordy', with a long horizontal line extending to the right.

Gene DeJordy  
Vice President, Regulatory Affairs

cc: Thomas Sugrue  
Bruce Franca  
Julius Knapp  
William Kunze  
Jay Jackson

June 11, 2001

Ms. Magnlio Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: FCC 00-188, AirCell, Inc.

Dear Ms. Salas:

Pursuant to Special Condition 9 of the waiver granted to AirCell, Inc. and confirmed by Memorandum Opinion and Order (FCC 00-188, released June 9, 2000), NEW-CELL, INC., dba CELLCOM ("CELLCOM") hereby provides the FCC with comments on its experience with AirCell, Inc.

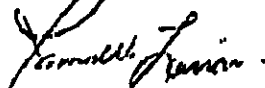
On March 26, 1997, CELLCOM signed a Facility and Services Agreement with AirCell, Inc. to provide it cellular network capacity for its air-ground telephone system. CELLCOM provides network capacity to AirCell through 2 cell sites in Wisconsin.

CELLCOM has not had any interference in our own network or from neighboring providers with the AirCell system. There are no problems with its performance nor is there any impact on our ground based services. In addition, CELLCOM has complied with all FCC rules and all relevant conditions of the AirCell waiver during this period.

CELLCOM is pleased to be a partner with AirCell and is earning revenue at sites that it otherwise would not see.

In conclusion, CELLCOM is pleased with its relationship with AirCell and believes that continuation of this service is in the public interest.

Sincerely,



James Lienau  
Vice President of Corporate Technical Services





June 24, 2001

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: FCC 00-188, AirCell, Inc.

Dear Ms. Salas:

Pursuant to Special Condition 9 of the waiver granted to AirCell, Inc. and confirmed by Memorandum Opinion and Order (FCC 00-188, released June 9, 2000), Centennial Communications ("CENTENNIAL") hereby provides the FCC with comments on its experience with AirCell, Inc.

On July 2<sup>nd</sup>, 1999, CENTENNIAL signed a contract with AirCell, Inc. to provide cellular network capacity for its air-ground telecommunications system. CENTENNIAL currently provides network capacity to AirCell through 7 cell sites located in 3 states.

CENTENNIAL has not received any complaints of interference to either our own network or the networks of neighboring providers. CENTENNIAL's monitoring of the AirCell system has not noted any problems with its performance or with its impact on our ground based services. CENTENNIAL has complied with all FCC rules and all relevant conditions of the AirCell waiver during this period.

CENTENNIAL is pleased to be providing service to AirCell and is earning revenue from an otherwise unserved market. Aviation users are now able to get a low cost communications link into their aircraft that can be used to make otherwise unproductive time more productive.

CENTENNIAL is pleased with its partnership with AirCell and urges the Commission to continue the authorization to provide AirCell service.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Carter". The signature is stylized with a large, looping "C" at the end.

David Carter  
Director, RF Engineering



## BUSINESS CLASS

Keith L. Alexander

### American Airlines Says 'Buh-Bye' To Phones

**A**merican Airlines is scrapping its in-flight phones. As of March 31, the world's largest airline will no longer have the AT&T Wireless phones on 654 of its planes used on domestic flights. Only its Boeing 777s and 767-300s, which are used mainly for international flights, will keep the service.

The phones have been on American's planes since 1996, but the airline found that fewer than three calls a day per plane were being made. To avoid the \$2.99 connection fee and a charge of \$7.60 a minute plus tax, many passengers prefer to use their personal cell phones, which is permitted in airports and on planes before their doors close.

American spokesman Todd Burke said removing the phones will eliminate maintenance costs and reduce the weight of the planes, which will lower fuel costs.

With the airline industry losing a record \$7 billion last year, other airlines are expected to follow American and remove in-flight phones, according to industry experts. Southwest Airlines was the first major airline to do so, in August.

Mark Siegel of AT&T Wireless said the company was leaving the in-flight phone business. With more people using cell phones, aviation no longer fits into AT&T's long-term business plans, he said.

Other airlines that use AT&T, including Northwest and Alaska Airlines, will either have to switch to another phone service or pull out their in-flight phones, according to industry sources.

Bobbi Henson, spokeswoman for Verizon Communications, parent of AT&T's biggest competitor, Verizon Airfone, said the company hopes to boost business by expanding beyond voice-only service and providing high-speed Internet access. Verizon is testing a high-speed service with United Airlines and Airbus.

#### Didn't We See This Before?

Sylvia Arndt of London-based Inflight Productions, which provides movies to 15 airlines, said several carriers have found another way to cut costs: Show older



BY JACQUELINE BERNHEIMER—ASSOCIATED PRESS  
Cindy Olson, an Enron Corp. executive, testifies yesterday before the Senate Governmental Affairs Committee. She made \$3 million from stock options.

## Rich Employee, Poor Employee

### Senate Panel Looking at Pensions Shown Both Sides of the Enron Coin

By ALBERT B. GREENSHAW  
Washington Post Staff Writer

Two Enron employees told a Senate committee yesterday what happened to them before and immediately after the collapse of the giant Texas energy-trading company.

Their stories were very different.

Deborah G. Perrotta, an administrative assistant, broke down in tears as she described losing her job, \$40,000 in retirement savings and all but a fraction of her severance pay.

The other, Cindy Olson, executive vice president of Enron's human resources department and one of the people in charge of the company's ill-fated 401(k) plan, still works for Enron. She matter-of-factly de-

scribed how a year ago, when Enron stock was near its peak, she cashed in options on 83,000 shares, netting about \$3 million.

Their testimony again highlighted the devastation that can befall employees who tie their jobs and their retirement security to a single company. But it also showed how much difference professional advice and investment instincts can make for workers in a situation like Enron's, and how workers caught up in a company's collapse can be affected very differently.

Perrotta and Olson testified before the Senate Governmental Affairs Committee, which is trying to determine what changes might be needed in federal pension and employment laws to improve worker protections should their employer fail.

The hearing highlighted several issues

that are common in 401(k) and other retirement savings plans known as defined-contribution plans, which, unlike old-fashioned defined-benefit pensions, place the market risk and reward on employees.

■ Fiduciary responsibility. Who is responsible for sharing information with employees and retirees, and how and when?

Former Enron Chairman Kenneth L. Lay encouraged workers to keep their retirement money in company stock. Perrotta recalled that in August she was awarded a block of shares, and an accompanying e-mail from Lay said that "one of my highest priorities is to restore investor confidence in Enron. This should result in a significantly higher stock price. I hope this grant

See PENSIONS, E2, Col. 1



Treasury Secretary Paul H. O'Neill, left; Federal Reserve Chairman Alan Greenspan, center; and Harvey L. Pitt, chairman of the Securities and Exchange Commission, speak at a Senate hearing yesterday about the public's lack of financial literacy.

## Ignorance Costs Plenty

## AES Says Quarterly Earnings Fell 81%

Va. Firm's Report Adds  
To Energy-Sector Woes

By KENNETH BREDEMEIER  
Washington Post Staff Writer

AES Corp., the Arlington-based global power company, yesterday reported an 81 percent drop in fourth-quarter earnings, further rattling the energy sector as the company begins a campaign to bolster steadily eroding confidence in its business.

The news came on a day the entire energy industry was reeling, with the financial condition of several large energy producers and traders worsening. Others, such as AES, are struggling to explain to investors that they are anything but Enron Corp. The markets remain worried about the sector as stocks of a broad



# Congress of the United States

Washington, DC 20515

February 27, 2002

The Honorable Norman Y. Mineta  
Secretary  
Department of Transportation  
400 Seventh St., S.W.  
Washington, D.C. 20590

Dear Secretary Mineta:

We wish to call your attention to Section 109 of the Aviation Security and Transportation Act, which requires the Department to determine whether to:

Provide for the use of technology that will permit enhanced instant communications and information between airborne passenger aircraft and appropriate individuals or facilities on the ground.

The Conferees adopted this provision because it is clear that we lack effective communications with commercial airliners to deal with terrorist hijackings and other in-flight emergencies.

During the September 11 attacks, federal aviation security officials were unable to obtain critical information concerning the attacks. In some cases, passengers and cabin crew were able to make phone calls to family members on seatback sky phones or private cell phones, but aviation security officials were not able to obtain critical information in an orderly, thorough, or reliable manner. This must not happen again.

We have learned that a communications company, AirCell, Inc., has been deploying an FCC and FAA approved air-ground communications system that can be used to provide voice and data communications for airline security. This system employs a nationwide ground network that uses special cellular airborne technology to provide communications between aircraft and the ground. Currently, this system is being used to transmit live NEXRAD weather and navigational information, in addition to cellular voice communications to general aircraft and is installed on over 700 such aircraft.

AirCell says that its system can be used for the following:

- To provide sky marshals and flight crews with cell phones they can use to call or send signals to the ground via the phone keypad to notify security officials of an in-flight emergency. The marshals also can receive calls on the phones, allowing officials on the ground to notify airborne marshals that a hijacking is underway on another airliner.
- To send live audio feeds from hidden cameras and microphones in the passenger aircraft

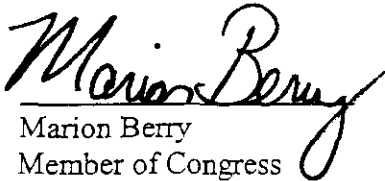
to security officials on the ground. These feeds can be the same as those provided to the cockpit from the passenger cabin and can be triggered by the sky marshal, airline crew, ground security officials or the occurrence of a designated event, such as the opening of a cockpit door.


- To transmit the data and voice signals being recorded on the black boxes to the ground in the event of an aircraft emergency. Real-time transmission of this information will provide critical information to security officials during an emergency and to investigators afterward.

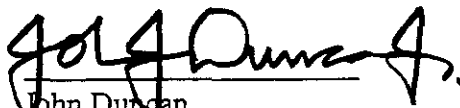
We respectfully urge the Department to expeditiously evaluate this information and determine whether to implement an air-ground communications system to support our large and growing force of sky marshals and to transmit video, audio, and black box information from an aircraft on a real-time basis in the event of an in-flight emergency. Given the absolute necessity of aviation safety and the hijacking threat facing the traveling public, we must do all we can to assure the flow of information from a commercial aircraft to federal officers on the ground in the event of an airline emergency. This is particularly true with military aircraft patrolling our skies that may have to take action as a last resort to protect the population on the ground.


Together with industry, the federal government can develop new and effective ways to increase aviation security. We look forward to hearing of your progress in considering implementation of instant air-ground communications as part of the Department of Transportation's work to enhance airline safety.


Sincerely,

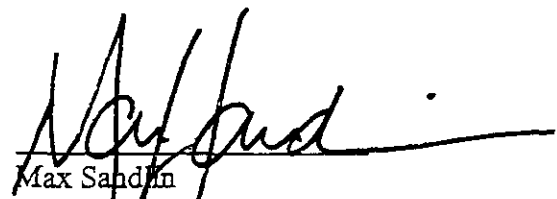
  
Marion Berry  
Member of Congress

  
Mike Ross  
Member of Congress

  
John Duncan  
Member of Congress

  
Nick Lampson  
Member of Congress

  
Nick Rahall  
Member of Congress

  
Max Sandlin  
Member of Congress

Sonny Callahan

Sonny Callahan  
Member of Congress

Sherwood Boehlert

Sherwood Boehlert  
Member of Congress

Howard Coble

Howard Coble  
Member of Congress

cc: Jane R. Garvey  
John W. Magaw



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## **AFFIDAVIT**

I, Herbert C. Harris, hereby declare and state as follows:

1. I am a communications consulting engineer with the firm of Kurtis & Associates, P.C.;
2. I graduated from the Johns Hopkins University, Baltimore, Maryland, with a degree of Bachelor of Science in Electrical Engineering in 1981;
3. I was formerly employed by the Federal Communications Commission as an engineer with the Office of Science and Technology, Research and Analysis Division in Columbia, Maryland;
4. I am familiar with the Federal Communications Commission's Rules and Regulations and Part 22.925 regarding 'Prohibition on airborne operation of cellular telephones';
5. I have designed cellular systems throughout the United States since the Commission authorized the spectrum for cellular use in 1982;
6. I am familiar with the waiver granted AirCell December 24, 1998, and the fact that the Commission did not grant them the authority to operate on cellular channels being used for digital terrestrial operations;
7. I reviewed the procedures for the TDMA and CDMA tests to evaluate the effect of airborne analog transmissions on these digital technologies;
8. I visited Lena, Illinois and observed the TDMA tests in progress;
9. I have reviewed the "Petition For Extension of Waiver" ("Petition"), prepared by Hogan & Hartson L.L.P., on behalf of AirCell, Inc.;
10. I reviewed the "AirCell Cross-Technology Interference Test" report, prepared by AirCell, as well as the two reports prepared by Wireless Systems Engineering, Inc., on AirCell's compatibility with TDMA and CDMA operations ("Reports");
11. In my professional judgment, the Petition and Reports referenced above are consistent with each other;
12. Based upon the data contained in those Reports, the conclusions drawn are consistent with sound engineering practices, the statistical analysis presented demonstrates that there should be no harmful interference to TDMA or CDMA cellular operations by the transmission of AirCell's analog airborne facilities;

13. The foregoing statements are true and correct of my own knowledge except such statements therein made on information and belief, and as to such statements, I believe them to be true;

I declare under penalty of perjury that the foregoing is true and correct.

2/28/02  
Date

Herbert C. Harris  
Herbert C. Harris

District of Columbia, ss:

Subscribed and sworn (or affirmed) to before me this 28<sup>th</sup> day of February, 2002.

Ruth E. Garavalia  
Notary Public, D.C.  
Ruth E. Garavalia

My commission expires: February 28, 2004



**A F F I D A V I T**

City of Washington :  
District of Columbia : SS

I, MEHRAN NAZARI, having been first duly sworn, do hereby declare under penalty of perjury as follows:

1. I am a Telecommunications Consultant and employed by the firm of XO Telecom Group, Inc.
2. I graduated from George Washington University, Washington, D.C., in 1982 with a Bachelor of Science degree in Electrical Engineering.
3. I have been involved in the design and construction of numerous Cellular and PCS networks utilizing analog Advance Mobile Phone System ("AMPS") and digital Time Domain Multiple Access ("TDMA") IS-136, Code Division Multiple Access ("CDMA") IS-95 and Global System for Mobile ("GSM") technologies since 1982.
4. I am familiar with Parts 21, 22, 24, 90 and 95 of the Federal Communications Commission's ("FCC's") rules, and have prepared or supervised the preparation of the technical portions of numerous applications filed with the FCC.
5. I was asked by AirCell, Inc. ("AirCell") to participate in its digital (TDMA and CDMA) compatibility tests.
6. AirCell tests were designed to measure the interference levels between AirCell and terrestrial digital (TDMA and CDMA) cellular.
7. I observed and witnessed its TDMA digital compatibility test, conducted by Wireless Systems Engineering, Inc. ("WSE"), in May 2000.
8. I have reviewed the Cross-Technology Interference test document prepared by Brian Cox and Kenneth Jochim of AirCell.
9. I have reviewed AirCell's TDMA Compatibility Test report, which was prepared by WSE as outlined in AirCell's Cross-

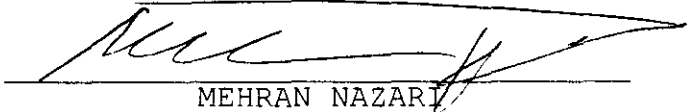
technology Interference test document.

10. Also, I have reviewed AirCell's CDMA Compatibility Test report, which was prepared by WSE as outlined in AirCell's Cross-Technology Interference test document.


11. Based on my review of the above-referenced documents, I believe that the tests conducted by WSE and the results reflected in its reports are sound and complete.

12. Based on the results of the tests conducted by WSE and the statistical analysis included in the report, it is clear that the operation of AirCell will not cause harmful interference onto the operation of terrestrial digital (TDMA and CDMA) cellular.

13. The foregoing statements of fact are true and correct to the best of my own personal knowledge and belief, and are proffered in good faith.

  
MEHRAN NAZARI

Subscribed to and sworn to before me  
this 4th day of February.

  
Notary Public

My Commission expires:

Catherine M. Seymour  
Notary Public, District of Columbia  
My Commission Expires 6-14-05

Agilent Technologies, Inc.  
29 Burlington Mall Road  
Burlington, Massachusetts 01803

781 270 7000 telephone  
781 221 5240 toll-free



**Agilent Technologies**  
Innovating the HP Way

April 5, 2001

Mr. Mehron Nazari, Esq.

Curtis and Associates, PC  
2000 M Street, NW  
Washington, DC 20036

Ref: AirCell, Inc. FCC matters

Dear Attorney Nazari:

I understand that you represent AirCell, Inc. ("AirCell") in matters pending before the Federal Communications Commission of the United States (FCC). This letter is in response to your verbal request for input concerning AirCell test and measurement activities conducted at Lena, Illinois on May 4th, 2000.

During that testing period I observed tests designed to simulate potential interference conditions produced by AirCell's proposed airborne infrastructure to existing terrestrial cellular services. Preparations and procedures for those tests were predetermined in a plan developed by AirCell and its associates, to which Hewlett-Packard did not contribute. The test plan integrated test equipment components which, in part, included a Hewlett-Packard (HP) 8921D/83204 cellular base station test set controlled by HP 11807B option 44 automated test software. Without any additional hardware or software, these two HP items comprise an accepted wireless industry test configuration used to evaluate specific parametric performance measures of North American Digital Cellular (NADC) base stations expressly manufactured by Northern Telecom (Nortel). As described in the test plan, interference assessments are based on measured responses of a DRU configured Nortel base station.

The manufacturing division responsible for the HP components described above became part of Agilent Technologies, Inc. ("Agilent") effective November 1, 2000. Therefore, while Agilent cannot affirm the efficacy of every test application utilizing the above described equipments, it can guarantee the accuracy of specific measurements used by an application, provided measurements are executed within the procedural limitations outlined in the applicable software and hardware manuals. Collectively, measurement results could then be used to interpret the behavior of a system as a whole. But, the validity of any single measurement depends on it being traceable to a National Institute of Standards and Technology (NIST) reference standard and accordingly on calibration procedures necessary to establish that link. Finally, interpretation of how these individual measurements relate to accepted Telecommunication Industry Association and Cellular Telecommunication Industry Association (TIA/CTIA) industry standards is decisive.

As indicated earlier, the combination of HP components chosen by AirCell is routinely used in the cellular communications industry to evaluate the performance and compliance of cellular base stations to the various TIA/CTIA, American National Standards Institute (ANSI), International Telecommunications Union (ITU), and FCC standards. Measurement data collected by the HP

8921D/83204 test and measurement system is presented in a format that relates to the appropriate base station operation standard.


In support of the above stated metrology requirements the following observations were made:

- The 8921D/83204 cellular base station test set was new equipment that had been factory calibrated within the two year time period recommended. Calibration compliance was indicated by valid calibration stickers affixed to the 8921D and its 83204 subassembly and by associated documents cross referencing the instrument serial numbers to these calibration stickers.
- There were no indications that unscheduled maintenance had been performed on the 8921D or 83204 subassembly since factory delivery. Therefore, any additional calibration efforts were not required.
- All 8921D self test procedures performed during power-up and initialization were normal and therefore indicated that all sub-assemblies were operating within expected limitations.
- Measurements were performed in a controlled environment. Ambient room temperature was within 0-55 degrees centigrade and the instrument was operated from commercial 110 volt power.
- A warm up/stabilization period exceeded 30 minutes prior to acquisition of any measurement data for the purpose of the test plan.
- The effect of cables and peripherals connected to the test instrument were taken into account through proper calibration procedures implemented by 11807B opt 44 automated test software procedures.

On behalf of Agilent Technologies and our Wireless Network Services Group, I would like to thank your client for the opportunity to assist them. While your tasks are formidable, we believe they have chosen the correct tools needed to reach their business objectives.

If you have any other needs or requirements please don't hesitate to call upon us.

Sincerely,

  
Paul Cuda  
Wireless Applications Engineer  
978-681-2141

cc: S. Hammond  
D. Wright

H



**AirCell, Inc.**

**AIRCELL CROSS-TECHNOLOGY  
INTERFERENCE TEST**

**Prepared for:**

**The Federal Communications Commission**

**Submitted: March 2002**

**Prepared by:**

**Brian Cox  
Kenneth J. Jochim**

3/15/2002